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SOIL MOISTURE SURVEY

of some representative Maine soil types

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Prepared by

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Agricultural Research Service
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U. S. Department of Agriculture

and

Maine Agricultural Experiment Station

Cooperating

SOIL MOISTURE SURVEY OF SOME REPRESENTATIVE MAINE SOIL TYPES[1/]

E. Epstein, W. J. Grant, and J. S. Hardesty[2/]

INTRODUCTION

Information regarding the ability of soils to hold moisture that is available for plant growth is of importance to the farmer, irrigation and drainage engineer, and agricultural researcher. Recent increases in irrigation practices in the humid region have developed a greater interest in the determination of the available water. It would be impractical to make these measurements for every soil type. The data herein provide information on representative soil types that can be related to similar soils.

SOILS STUDIED

Selection of soils was based on their importance as an agricultural soil and on the need of moisture retention information in regard to irrigation practices. The soils are listed in table 1 with the available moisture to a 30-inch depth. Distribution of sample sites within the state is shown in figure 1. All samples were taken from cultivated land, and the profiles were described by soil scientists of the Soil Conservation Service, United States Department of Agriculture. Soil type descriptions are presented in tables at the end of the report.

1/ Joint contribution of the Soil and Water Conservation Research Division (Agricultural Research Service) and the Soil Conservation Service, USDA, and the Maine Agricultural Experiment Station.

2/ E. Epstein and W. J. Grant, Soil Scientists, Soil and Water Conservation Research Division, Agricultural Research Service, USDA, and J. S. Hardesty, State Soil Scientist, Soil Conservation Service, USDA, located at Maine Agricultural Experiment Station, Orono. The following soil scientists of the Soil Conservation Service assisted in the collection of samples: John R. Arno, Kenneth LaFlamme, Sheldon Michaels, and R. B. Willey.

Table 1.--Soils studied in Maine and their available water to a 30-inch depth

Soil No.	Soil Type	Maine field No.	Inches of available water to 30 inches	Remarks
		Podzols		
1	Adams Loamy Sand, Silty Clay Substrata	M- 6-59	1.82	
2	Adams Loamy Sand	M- 8-59	.94	
3	Adams Loamy Fine Sand	M-10-60	1.97	
4	Allagash Sandy Loam, Shallow to Sand	M-11-60	2.28	
5	Allagash Fine Sandy Loam	M- 1-59	3.42	
6	Bangor Silt Loam	M- 4-59	3.44*	Pan at 18 inches
7	Bangor Silt Loam	M- 7-58	5.56	
8	Bangor Silt Loam	M-23-60	7.09	
9	Caribou Gravelly Silt Loam	M-13-59	6.34	
10	Caribou Gravelly Loam	M- 8-60	7.62	
11	Colton Loamy Fine Sand	M- 1-58	1.96	
12	Colton Sandy Loam	M- 1-60	1.81	
13	Colton Sandy Loam	M- 2-60	1.26	
14	Conant Silt Loam	M- 3-60	4.62*	Pan at 22 inches
15	Conant Silt Loam	M- 5-60	3.49*	Pan at 19 inches
16	Daigle Silt Loam	M-27-60	3.56*	Pan at 17 inches
17	Daigle Silt Loam	M-31-60	3.35*	Pan at 21 inches
18	Dixmont Silt Loam	M- 3-59	2.92*	Pan at 15 inches
19	Dixmont Silt Loam	M-15-60	6.35*	Pan at 18 inches
20	Mapleton Shaly Silt Loam	M- 9-60	4.00**	Bedrock at 26 inches
21	Perham Gravelly Silt Loam	M-26-60	5.55*	Pan at 27 inches
22	Perham Gravelly Silt Loam	M-30-60	4.32*	Pan at 20 inches
23	Plaisted Loam	M- 2-58	2.42*	Pan at 14 inches
24	Plaisted Loam	M- 2-59	3.84*	Pan at 26 inches
25	Plaisted Loam	M-24-60	4.78*	Pan at 18 inches
26	Salmon Silt Loam	M-21-60	4.12	
27	Salmon Silt Loam	M-22-60	8.50	
28	Stetson Gravelly Loam	M-11-59	2.64	
29	Stetson Gravelly Loam	M- 7-60	3.22	
30	Thorndike Silt Loam	M- 3-58	3.84**	Bedrock at 24 inches
31	Thorndike Shaly Silt Loam	M-25-60	3.46**	Bedrock at 16 inches
32	Thorndike Shaly Loam	M-29-60	2.53**	Bedrock at 23 inches

Table 1. Continued

Soil No.	Soil Type	Maine field No.	Inches of available water to 30 inches	Remarks
		Brown Podzolics		
33	Buxton Silt Loam	M- 9-59	5.26	
34	Buxton Silt Loam	M-12-59	5.37	
35	Buxton Silt Loam	M-14-60	3.71	
36	Buxton Silt Loam	M- 4-58	6.65	
37	Hinckley Sandy Loam	M- 7-59	2.38	
38	Suffield Silt Loam	M- 5-58	7.32	
39	Suffield Silt Loam	M- 6-58	8.31	
40	Suffield Silt Loam	M-10-59	4.53	
41	Suffield Silt Loam	M-12-60	4.42	
		Low Humic Gleys		
42	Easton Silt Loam	M- 4-60	3.73	
43	Easton Silt Loam	M- 6-60	3.36	
44	Monarda Silt Loam	M- 5-59	2.90*	Pan at 10 inches
45	Monarda Silt Loam	M-16-60	5.42*	Pan at 25 inches
46	Scantic Silt Loam	M-13-60	5.62	
		Alluvials		
47	Hadley Silt Loam	M-19-60	6.24	
48	Hadley Silt Loam	M-20-60	9.00	
49	Ondawa Fine Sandy Loam	M-32-60	5.51	
50	Suncook Loamy Sand	M-17-60	2.32	
51	Suncook Loamy Sand	M-18-60	2.64	

* The designated soils are characterized by a fragipan at the depth indicated; hence, the available water to that depth is shown.

** The Thorndike and Mapleton soils are shallow to bedrock; figures refer to the amount of available water to bedrock.

Sampling Procedure

Three undisturbed soil cores were taken in each major horizon with a modified Lutz-type core sampler. The soil cores were encased in thin-walled brass rings approximately 2 inches in diameter and 1 inch high. The samples were placed in closed tin containers to prevent evaporation of moisture. A bulk sample of soil was also taken from each horizon.

Laboratory Procedure

Bulk density. The bulk density of each horizon is reported as the average density of the three core samples. Generally the discrepancies in the bulk densities of the triplicate samples were small; it should be pointed out, however, that those cores containing large stones or large root channels were discarded. Bulk density was obtained from clod samples when it was impossible to obtain cores.

Moisture retention. The moisture retention characteristics of each soil horizon was determined with the use of pressure equipment. Moisture retention at 1/10-, 1/3-, and 2/3-atmosphere tension was determined with the pressure plate apparatus. Undisturbed soil cores were placed on the ceramic plate and allowed to stand in excess of water for at least 16 hours. These samples were then placed in the pressure cooker, and pressure was applied for 48 hours or when outflow of water ceased. Moisture content was then determined by drying at 105° C. to constant weight.

For pressures of 5- and 15-atmosphere tension, samples were placed in a pressure cell. Disturbed soil was placed in a soil-retaining ring and saturated with water for at least 16 hours. Pressure was then applied for 48 hours and the samples removed for moisture content determination.

Calculations

Field capacity is that moisture content percentage of soil from which the downward movement of water has become negligibly slow after being wetted. The moisture content at 1/3-atmosphere tension has been empirically defined as that of field capacity. Wilting percentage is the point where plants can no longer obtain sufficient moisture to maintain life; it has been found to be closely related to the 15-atmosphere tension. The amount of plant-available water in the soil is the difference between the amount retained at the 1/3-atmosphere tension and the 15-atmosphere value. The available moisture range of a soil is a capacity value, and the water probably is not equally available over the range from field capacity to wilting percentage.

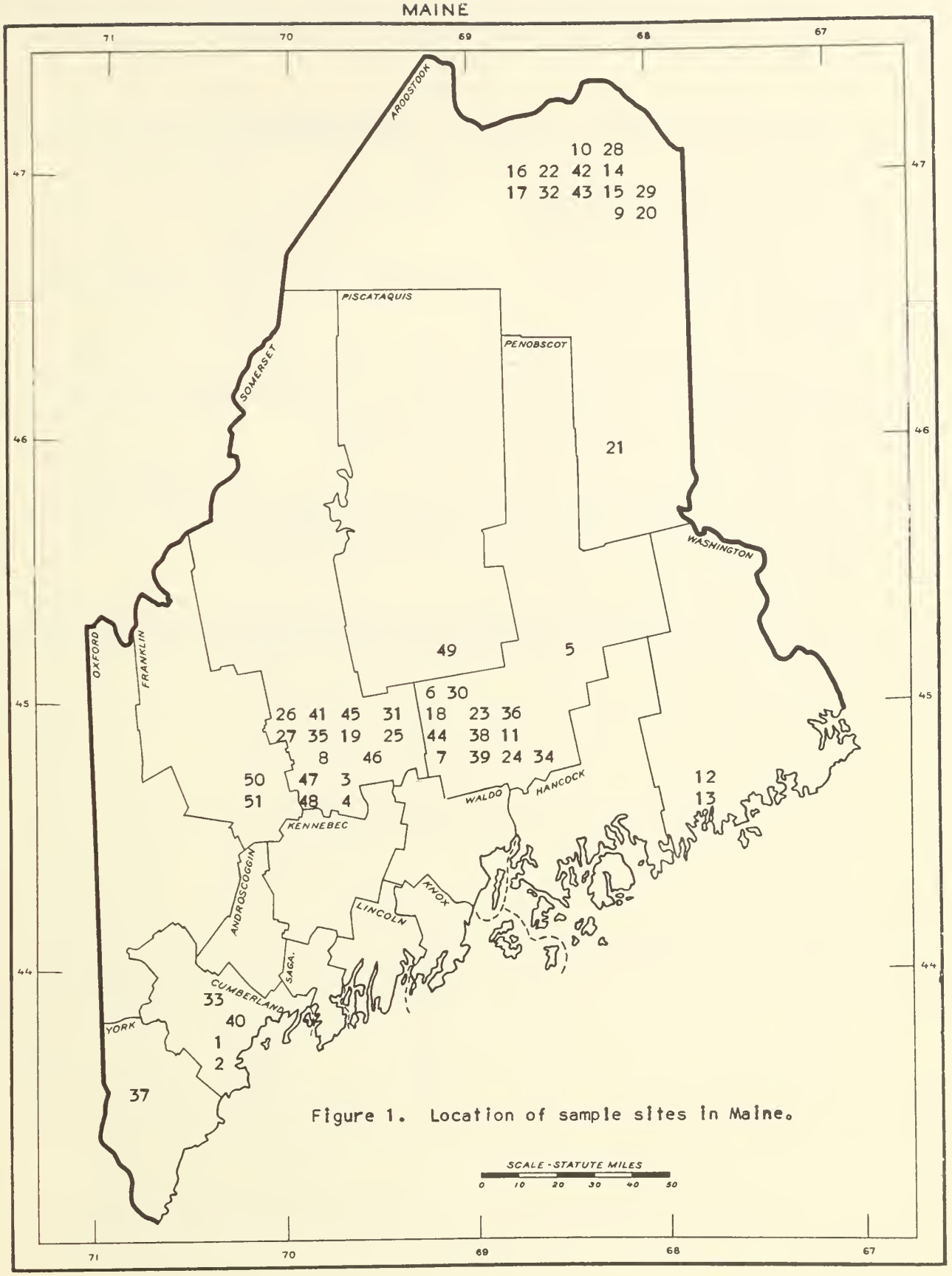

Figure 1. Location of sample sites in Maine.

Inches of water/inch of soil was calculated for unit depth by converting the soil moisture content from a percent by weight to a volume basis.

$$\text{Inches of water/inch of soil} = \left(\frac{\text{Bulk density}}{\text{density of water}}\right)\left(\begin{array}{c}\text{Available}\\ \text{moisture content}\\ \text{by weight}\end{array}\right)$$

Density of water was taken as unity.

Coarse fragments

A number of profiles contain a large percentage of coarse fragments above 4 mm. As these fragments were not a part of the sample used in the moisture retention data, any interpretation of the data for a given site should take into consideration the amount of coarse material.

At present there are no data on the percentage of rocks in some of the major till soils in Maine. The percentage of rocks in the plow layer will vary with freezing and thawing as well as with management practices, such as rock picking.

The textures that appear in the profile descriptions were designated in the field and may not agree with the textures as obtained in the laboratory. The latter determinations are shown in the lower tabulation accompanying the soil descriptions.

SOIL PROFILE AND SOIL MOISTURE DESCRIPTIONS

Adams Loamy Sand, Silty Clay Substrata (M-6-59)

Sample 1*

Location: Portland, Cumberland County, Maine
Topography: Gently sloping to rolling
Classification: Podzol
Drainage: Well drained with rapid permeability down to the D horizon
Parent Material: Water-deposited sands over marine silts and clays

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_p	0- 7	Very dark brown (10YR 2/2) sandy loam; weak medium granular structure; very friable; abrupt smooth boundary.	0.13	0.91
B_{21}	7-12	Dark brown (7.5Y 4/4) sandy loam; very weak medium granular structure; very friable; gradual wavy boundary.	.05	.25
B_{22}	12-24	Dark grayish brown (10YR 4/2) loamy sand; single grain; friable; clear smooth boundary.	.03	.36
D	24-28+	Olive (5Y 4/3) silty clay; massive in place, blocky subangular when disturbed; very firm.	.05	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Sandy loam	1.23	27.5	19.8	18.1	8.9	8.9
B_{21}	7-12	Sand	1.38	8.9	7.3	6.5	3.8	3.8
B_{22}	12-24	Sand	1.34	5.7	4.5	3.5	2.3	2.3
D	24-38+	Silty clay	1.57	22.4	21.5	21.1	19.2	18.3

* Locations of samplings are denoted by sample numbers on figure 1.

Adams Loamy Sand (M-8-59)

Sample 2

Location:	Saco, York County, Maine	Topography:	Gently sloping to nearly level
Classification:	Podzol	Drainage:	Excessively drained
Parent Material:	Deep water-deposited sands		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_p	0- 4	Dark brown (10YR 3/3) loamy sand; single grain; loose; abrupt smooth boundary.	0.04	0.16
B_{21}	4-10	Reddish yellow (7.5YR 6/8) fine sand; single grain; loose; gradual wavy boundary.	.05	.30
B_{22}	10-18	Brownish yellow (10YR 6/6) sand; single grain; loose; gradual wavy boundary.	.03	.24
B_{23}	18-34	Pale yellow (2.5Y 7/4) sand; single grain; loose; gradual wavy boundary.	.02	.32
C	34-40+	Pale yellow (2.5Y 7/3) sand; single grain; loose.	.02	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 4	Sand	1.31	10.4	7.2	6.6	4.4	3.8
B_{21}	4-10	Sand	1.31	9.7	8.5	8.0	4.8	4.8
B_{22}	10-18	Sand	1.45	5.0	4.0	3.6	2.1	2.1
B_{23}	18-34	Sand	1.47	4.2	3.1	2.6	1.5	1.1
C	34-40+	Sand	1.42	3.0	2.2	1.2	1.0	.5

Bangor Silt Loam (M-7-58)

Sample 7

Location: Newport, Penobscot County, Maine
Topography: Long ridges of the upland
Classification: Podzol
Drainage: Well drained
Parent Material: Slaty glacial till with high percent of silts; usually slightly acid to neutral

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 6	Dark grayish brown (10YR 4/2) silt loam; moderately strong medium granular structure; friable; abrupt smooth boundary.	0.24	1.44
B_{21}+ B_{22}	6-12	Yellowish brown (10YR 5/6) to brownish yellow (10YR 6/6) silt loam; weak medium granular structure; friable; clear wavy boundary.	.16	.96
B_3	12-20	Light olive brown (2.5Y 5/4) silt loam; weak fine subangular blocky structure; firm; 10-15% coarse skeleton; gradual wavy boundary.	.17	1.36
C_1	20-34	Olive (5Y 5/3) silt loam; moderately strong medium subangular blocky structure; firm; 10-15% coarse skeleton; noticeable leached fragments; diffuse wavy boundary.	.18	2.52
C_2	34-40+	Olive (5Y 5/4) gravelly silt loam; weak medium platy structure; many leached fragments; clear wavy boundary.	.23	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 6	Silt loam	1.16	39.4	32.1	29.6	19.5	11.5
B_{21}+B_{22}	6-12	Silt loam	1.19	26.8	21.4	18.2	13.3	8.1
B_3	12-20	Silt loam	1.31	23.4	19.5	16.5	10.7	6.6
C_1	20-34	Silt loam	1.46	21.0	18.5	16.8	11.5	6.0
C_2	34-40+	Silt loam	1.53	22.9	20.6	19.3	12.9	5.8

Bangor Silt Loam (M-23-60)

Sample 8

Location: Madison, Somerset County, Maine
Topography: Gently sloping, 3 percent
Classification: Podzol
Drainage: Well drained
Parent Material: Glacial till from shales and slates

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark grayish brown (10YR 4/2) silt loam; moderate medium granular structure; friable; 10% coarse fragments; abrupt smooth boundary.	0.21	1.68
B_{21}	8-12	Yellowish brown (10YR 5/8) silt loam; weak fine granular structure; friable; 15% coarse fragments; clear wavy boundary.	.24	.96
B_{22}	12-17	Yellowish brown (10YR 5/4) silt loam; weak granular structure; friable; 15% coarse fragments; clear wavy boundary.	.28	1.40
B_3	17-23	Light olive brown (2.5Y 5/4) loam; weak fine granular structure; firm in place, friable on removal; 20% coarse fragments; clear wavy boundary.	.24	1.44
C	23-36+	Olive (5Y 5/4) loam; weak thin platy structure; firm; 25% coarse fragments.	.23	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	0.76	50.3	40.3	34.9	14.4	13.6
B_{21}	8-12	Silt loam	1.20	35.9	28.8	22.3	10.2	8.9
B_{22}	12-17	Silt loam	1.20	35.7	29.5	20.8	8.9	6.0
B_3	17-23	Silt loam	1.37	29.1	22.5	16.3	8.0	5.0
C	23-36+	Silt loam	1.54	21.0	18.8	15.6	7.3	4.2

Caribou Gravelly Silt Loam (M-13-59)

Sample 9

Location: Presque Isle, Aroostook County, Maine

Topography: Gently sloping to undulating or sloping

Classification: Podzol (Bisequum)

Parent Material: Glacial till from gray calcareous shales

Drainage: Well drained

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 7	Dark gray brown (10YR 4/2) gravelly silt loam; weak fine granular structure; friable; abrupt wavy boundary; pH 5.6.	0.19	1.33
B_{21}	7-11	Yellowish brown (10YR 5/6) gravelly loam; weak fine granular structure; friable; clear smooth boundary; pH 5.2.	.20	.80
B_{22}	11-14	Yellowish brown (10YR 5/8) gravelly loam; weak fine granular structure; friable; clear smooth boundary; pH 5.2.	.26	.78
A'_2	14-18	Light olive brown (2.5Y 5/6) loam; weak fine platy structure; firm in place, friable on removal; abrupt smooth boundary; pH 5.6.	.23	.92
B'_{21}	18-29	Dark brown (10YR 4/3) gravelly silt loam; strong medium subangular blocky structure; firm; clay films on peds; gradual wavy boundary; pH 6.2.	.21	2.31
B'_{22}	29-59	Dark brown (10YR 4/3) gravelly silt clay loam; strong medium subangular blocky structure to massive; very firm; 20 to 30 inches thick.	.20	6.00

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 7	Loam	1.28	28.8	25.2	23.7	16.8	10.5
B_{21}	7-11	Loam	1.19	33.0	25.6	23.6	15.2	8.7
B_{22}	11-14	Silt loam	1.70*	28.5	23.0	21.8	14.4	7.6
A'_2	14-18	Loam	2.17*	21.4	17.8	16.6	11.7	7.4
B'_{21}	18-29	Loam	2.09*	20.3	18.3	16.1	12.4	8.1
B'_{22}	29-59	Loam	2.06*	19.7	17.2	14.3	10.2	7.3

* Clods

Caribou Gravelly Loam (M-8-60)

Sample 10

Location: Caribou, Aroostook County, Maine
Topography: Gently sloping, 3 percent
Classification: Podzol (Bisequum)
Drainage: Well drained
Parent Material: Glacial till from gray calcareous shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Dark brown (10YR 4/3) gravelly loam; weak fine granular structure; friable; 10% coarse fragments; abrupt smooth boundary.	0.20	1.40
B_{21}	7-10	Strong brown (7.5YR 5/8) gravelly loam; weak fine granular structure; friable; 15% coarse fragments; abrupt wavy boundary.	.34	1.02
B_{22}	10-12	Yellowish brown (10YR 5/6) gravelly loam; weak fine granular structure; friable; 15 to 20% coarse fragments; abrupt wavy boundary.	.30	.60
A'_2	12-19	Light olive brown (2.5Y 5/4) gravelly loam; weak fine granular and weak thin platy structure; firm in place; 30% coarse fragments; clear wavy boundary.	.28	1.96
B'_{21}	19-34	Dark brown (10YR 4/3) gravelly loam; weak fine subangular blocky structure; firm; clay films on peds; 25% coarse fragments.	.24	
B'_{22}		Similar to above horizon.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Loam	1.38	26.7	24.3	23.9	13.0	10.5
B_{21}	7-10	Silt loam	1.36*	43.5	39.3	37.2	18.5	14.2
B_{22}	10-12	Silt loam	1.46*	35.6	30.7	28.2	13.6	10.3
A'_2	12-19	Silt loam	1.59*	31.6	26.0	23.8	14.6	8.3
B'_{21}	19-34	Silt loam	1.82*	17.7	17.5	16.9	9.5	4.2

* Clods

Colton Loamy Fine Sand (M-1-58)

Sample 11

Location:	Orono, Penobscot County, Maine	Topography:	Gently rolling to nearly level
Classification:	Podzol	Drainage:	Somewhat excessive
Parent Material:	Stream terrace, coarse textured sand and gravel deposits		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_p	0-10	Dark yellowish brown (10YR 3/4) to brown (10YR 5/3) loamy fine sand; weak fine granular structure; very friable; abrupt wavy boundary.	0.07	0.70
B_2+B_3	10-19	Yellowish brown (10YR 5/8) to light yellowish brown (2.5Y 6/4) loamy fine sand; single grain; loose; diffuse wavy boundary.	.08	.72
C_1	19-26	Yellow (10YR 7/6) sand, speckled black and gray; single grain; very friable; gradual wavy boundary.	.06	.42
C_2	26-31	Grayish brown (2.5Y 5/2) sand with brown streaks; weak medium subangular blocky; firm; gradual wavy boundary.	.03	.15
D_1	31-37+	Light brownish gray (10YR 6/2) cobbly and gravelly sand; single grain; firm; about 80% coarse skeleton.	.08	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	1-10	Loamy sand	1.30	18.5	11.1	9.6	6.8	5.1
B_2+B_3	10-19	Sand	1.35	16.4	9.4	8.2	4.5	3.5
C_1	19-26	Sand	1.43	10.4	6.1	5.0	3.1	2.4
C_2	26-31	Sand	1.48	7.1	4.1	3.5	2.1	1.7
D_1	31-37+	Sand	1.40	7.1	6.1	4.8	1.6	1.0

Colton Sandy Loam (M-1-60)

Sample 12

Location: Columbia, Washington County, Maine
Topography: Gently sloping to undulating
Classification: Podzol
Drainage: Excessively drained
Parent Material: Glacial-water-deposited sands and gravel

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_p	0- 3	Black (2.5Y 2/0) very fine sandy loam; weak very fine granular structure; very friable; abrupt smooth boundary.	0.13	0.39
A_2	3- 4	Dark gray (10YR 4/1) loamy sand; weak fine granular structure; very friable; abrupt broken boundary.	.10	.10
B_{21}	4- 8	Dark yellowish brown (10YR 4/4) sandy loam; weak very fine granular structure; very friable; clear smooth boundary.	.10	.40
B_{22}	8-15	Yellowish brown (10YR 5/6) sandy loam; weak very fine granular structure; very friable; clear smooth boundary.	.08	.56
B_{23}	15-22	Light olive brown (2.5Y 5/4) loamy sand; single grain; loose; clear smooth boundary.	.04	.28
D	22-36+	Pale yellow (2.5Y 7/4) very coarse sand and gravel; single grain; loose; 70% coarse skeleton.	.01	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_1	0- 3	Sandy loam	0.78	43.4	32.8	30.8	18.1	17.2
A_2	3- 4	Sandy loam	1.12	26.2	18.3	18.2	10.1	8.9
B_{21}	4- 8	Loamy sand						
B_{22}	8-15	Sand	1.30	17.0	11.2	10.9	7.1	5.5
B_{23}	15-22	Sand	1.39	9.6	5.9	6.6	3.9	2.9
D	22-36+	Sand	1.51	2.4	1.5	1.2	1.2	1.1

Colton Sandy Loam (M-2-60)

Sample 13

Location: Columbia, Washington County, Maine
Topography: Gently sloping to undulating
Classification: Podzol
Drainage: Excessively drained
Parent Material: Glacial-water-deposited sands and gravel

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_1	0- 1	Black (10YR 2/1) very fine sandy loam; weak very fine granular structure; very friable; abrupt smooth boundary.		
A_2	1- 5	Dark gray (10YR 4/1) loamy sand; weak very fine granular structure; very friable; abrupt irregular boundary.	0.07	0.35
B_{21}	5- 9	Yellowish red (5YR 4/6) sandy loam; weak very fine granular structure; very friable; clear wavy boundary.	.08	.32
B_{22}	9-13	Yellowish brown (10YR 5/6) sandy loam; weak very fine granular structure; very friable; clear wavy boundary.	.08	.32
B_{23}	13-23	Light olive brown (2.5Y 5/6) sand; single grain; loose; clear wavy boundary.	.02	.20
D	23-38+	Salt and pepper color; very coarse sand and gravel; single grain; loose; 40% coarse skeleton.	.01	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_2	1- 5	Loamy sand	1.14	15.1	11.2	9.3	9.2	5.3
B_{21}	5- 9	Sandy loam	.81	37.0	29.9	28.5	27.7	19.5
B_{22}	9-13	Sandy loam	1.02	25.0	18.9	18.3	11.5	10.7
B_{23}	13-23	Sand	1.33	6.0	3.9	3.8	2.9	2.6
D	23-29+	Sand	1.47	1.6	1.1	1.1	1.1	1.0

Conant Silt Loam (M-3-60)

Sample 14

Location: Caribou, Aroostook County, Maine
Topography: Gently sloping
Drainage: Moderately well to somewhat poorly drained
Classification: Podzol (Bisequum)
Parent Material: Glacial till from gray calcareous shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0-11	Dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; very friable; abrupt smooth boundary.	0.16	1.76
B_2	11-13	Yellowish brown (10YR 5/6) silt loam; weak granular structure; very friable; clear wavy boundary.	.17	.34
A'_{2g}	13-22	Grayish brown (2.5Y 5/2) silt loam with a few faint yellowish brown (10YR 5/4) and dark grayish brown (10YR 4/2) mottles; weak platy structure; friable; about 25% coarse fragments; clear wavy lower boundary.	.28	2.52
B'_{21gm}	22-35	Light olive brown (2.5Y 5/4) silt loam with yellowish brown (10YR 5/6) and grayish brown (10YR 5/2) mottles; moderate coarse platy breaking to moderate coarse subangular blocky structure; very firm; silt or clay films on tops and sides of plates and shale fragments; many pores stained with manganese; about 20% coarse fragments; clear wavy lower boundary.	.25	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-11	Silt loam	1.05	33.6	29.4	27.3	24.1	14.0
B_2	11-13	Loam	1.25	28.2	25.4	24.4	19.5	11.9
A'_{2g}	13-22	Loam	1.83*	19.8	21.0	18.0	11.6	5.6
B'_{21gm}	22-28+	Loam	1.98*	15.1	14.4	14.5	9.1	2.2

* Clods

Conant Silt Loam (M-5-60)

Sample 15

Location: Caribou, Aroostook County, Maine
Classification: Podzol (Bisequum)
Parent Material: Glacial till from gray calcareous shales
Topography: Gently sloping
Drainage: Moderately well to somewhat poorly drained

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 9	Dark brown (10YR 4/3) silt loam; moderate medium granular structure; very friable; abrupt smooth boundary.	0.12	1.08
B_2	9-12	Dark brown (7.5YR 4/4) fine gravelly silt loam; weak medium granular structure; very friable; abrupt boundary.	.22	.66
A'_{2g}	12-19	Light olive brown (2.5Y 5/4) silt loam with a few fine olive gray (5Y 5/2) mottles; weak coarse platy structure; friable; 15 to 20% coarse fragments; clear irregular boundary.	.25	1.75
B'_{21gm}	19-27	Olive brown (2.5Y 5/4) silty clay loam with many coarse grayish brown (2.5Y 5/2) and a few fine yellowish brown (10YR 5/6) mottles; moderate coarse subangular blocky structure; very firm; silt on top and sides of peds; clear irregular boundary.	.32	2.56
B'_{22gm}	27-35	Olive brown (2.5Y 4/4) clay loam with coarse gray (2.5Y 5/0) and a few fine yellowish brown (10YR 5/4) mottles; moderate coarse subangular blocky structure; very fiem; 15 to 25% coarse fragments; clear wavy boundary.	.32	2.56

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	1- 9	Silt loam	1.07	32.5	30.3	28.7	20.9	19.0
B_2	9-12	Silt loam	1.39	24.5	23.4	22.7	12.7	7.6
A'_{2g}	12-19	Loam	1.72*	21.3	20.3	17.3	10.4	6.0
B'_{21gm}	19-27	Loam	1.99*	24.5	21.6	20.7	12.5	5.7
B'_{22gm}	27-35	Loam						

* Clods

Daigle Silt Loam (M-27-60)

Sample 16

Location: Perham, Aroostook County, Maine
Topography: Gently sloping
Drainage: Somewhat poorly drained
Classification: Podzol (Bisequum)
Parent Material: Glacial till from shales and slates

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0-10	Dark grayish brown (10YR 4/2) silt loam; strong coarse granular structure; friable; 15% shale fragments; abrupt smooth boundary.	0.23	2.30
B_{21g}	10-17	Dark yellowish brown (10YR 3/3) silt loam with a few fine distinct grayish brown mottles; strong coarse granular structure; friable; 25% shale fragments; abrupt clear boundary.	.18	1.26
A'_{2gm}	17-27	Grayish brown (2.5Y 5/2) loam with a few fine distinct yellowish brown and gray mottles; weak fine platy structure; firm in place; 45% shale fragments; clear wavy boundary.	.16	1.60
B'_{2gm}	27-36	Dark yellowish brown (10YR 4/4) clay loam with common medium distinct grayish brown mottles; moderate medium subangular blocky structure; firm; clay films on peds; 25% shale fragments.	.16	1.44

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-10	Silt loam	1.00	41.0	37.8	33.2	21.2	14.7
B_{21g}	10-17	Silt loam	1.23	29.4	27.7	24.2	18.6	13.2
A'_{2g}	17-27	Silt loam	1.37*	21.0	18.2	15.3	7.6	6.9
B'_{21g}	27-36	Loam	2.07*	20.4	16.1	15.4	10.8	8.2

* Clods

Daigle Silt Loam (M-31-60)

Sample 17

Location: Perham, Aroostook County, Maine
Topography: Gently sloping, 3 percent
Classification: Podzol (Bisequum)
Drainage: Somewhat poorly drained
Parent material: Glacial till from shales and slates

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 6	Dark gray (10YR 4/1) silt loam; moderate medium granular structure; friable; 10% shale fragments; abrupt smooth boundary.	0.18	1.08
B_2	Discontinuous	Yellowish brown (10YR 5/8) loam; moderate medium granular structure; friable; 20% shale fragments; clear discontinuous boundary. (Not thick or uniform enough to be sampled.)		
A'_{2g}	6-10	Light olive brown (2.5Y 5/4) loam with common medium distinct grayish brown (10YR 5/2) mottles; weak thin platy structure; firm; 30% shale fragments; clear wavy boundary.	.21	.84
B'_{21g}	10-21	Dark yellowish brown (10YR 4/4) gravelly clay loam with common coarse grayish brown (10YR 5/2) and yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; firm; brittle; clay films on peds; 40% shale fragments; clear wavy boundary.	.13	1.41
B'_{22gm}	21-30+	Dark brown (10YR 4/3) gravelly clay loam with a few fine grayish brown (10YR 5/2) mottles; very firm platy structure in place, breaking to strong fine subangular blocky structure on removal; brittle; clay films on peds; 40% shale fragments.	.13	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 6	Silt loam	1.05	32.9	27.6	24.1	14.9	10.1
A'_{2g}	6-10	Silt loam	1.94*	22.3	18.2	15.8	9.5	7.2
B'_{21g}	10-21	Clay loam	2.00*	20.4	16.3	13.4	10.8	9.8
B'_{22g}	21-30+	Clay loam	1.83*	21.7	17.6	14.7	13.2	10.2

* Clods

Dixmont Silt Loam (M-3-59)

Sample 18

Location: Corinna, Penobscot County, Maine
Topography: Gently sloping
Drainage: Moderately well drained
Classification: Podzol
Parent Material: Slaty glacial till with high percent of silt; usually neutral or slightly acid

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Dark yellowish brown (10YR 4/4) silt loam; weak medium granular structure; very friable; 10-20% coarse skeleton; abrupt smooth boundary.	0.20	1.40
B_{21}	7-15	Yellowish brown (10YR 5/6) silt loam; weak medium platy structure; friable; 10-20% coarse skeleton; clear discontinuous boundary.	.19	1.52
B_{22gm}	15-23	Light olive brown (2.5Y 5/4) silt loam with many medium prominent light olive gray (5Y 6/2) and light brownish gray (2.5Y 6/2 mottles; strong medium platy structure; very firm; 10-20% coarse skeleton.	.17	1.36
B_{31gm}	23-37	Light olive gray (5Y 6/2) silt loam with many light olive brown (2.5Y 5/4) and brownish yellow (10YR 6/6) mottles; strong medium platy structure; very firm; 20-30% coarse skeleton; clear wavy boundary.	.09	1.26
B_{32gm}	37-50	Dark yellowish brown (10YR 4/4) silt loam with a few yellowish brown (10YR 5/4) mottles; moderately strong medium platy structure; very firm; 30-40% coarse skeleton; diffuse wavy boundary.	.16	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Silt loam	1.28	28.6	26.0	23.5	12.6	9.8
B_{21}	7-15	Loam	1.53	20.1	18.1	14.2	9.5	5.6
B_{22gm}	15-23	Silt loam	1.71	16.2	16.1	15.0	11.9	6.3
B_{31gm}	23-37	Silt loam	1.75	15.2	15.1	13.9	13.8	9.6
B_{32gm}	37-50	Silt loam	1.69	17.6	17.5	16.1	14.0	8.1

Dixmont Silt Loam (M-15-60)

Sample 19

Location: Cornville, Somerset County, Maine
Topography: Gently sloping
Drainage: Moderately well drained
Classification: Podzol
Parent Material: Wisconsin glacial till from acid slates and shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 9	Dark grayish brown (10YR 4/2) silt loam; weak medium granular structure; friable; 15% coarse fragments; abrupt smooth boundary.	0.22	1.98
B_{21}	9-11	Yellowish brown (10YR 5/6) silt loam; weak medium granular structure; friable; 15% coarse fragments; clear wavy boundary.	.31	.62
B_{22g}	11-18	Light olive brown (2.5Y 5/6) silt loam with many fine grayish brown mottles; weak fine granular structure; friable; 20% coarse fragments; clear wavy boundary.	.27	1.89
B_{3gm}	18-24	Light olive brown (2.5Y 5/4) silt loam with many medium strong brown and grayish brown mottles; strong thin platy structure; very firm; 20% coarse fragments; clear wavy boundary.	.19	1.14
C_{1gm}	24-36+	Light olive brown (2.5Y 5/4) silt loam with a few fine dark brown and grayish brown mottles; massive; very firm; 30% coarse fragments.	.15	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 9	Silt loam	1.16	37.9	34.9	33.0	16.0	15.9
B_{21}	9-11	Silt loam	1.25	36.1	31.1	27.5	11.1	6.5
B_{22g}	11-18	Sandy loam	1.33	32.8	26.9	23.0	9.0	6.4
B_{3gm}	18-24	Loam	1.86	14.4	13.2	11.7	5.8	3.0
C_{1gm}	24-36+	Loam	1.83	14.2	12.4	9.8	6.0	4.6

Mapleton Shaly Silt Loam (M-9-60)

Sample 20

Location:	Fort Fairfield, Aroostook County, Maine	Topography:	Gently sloping ridge top
Classification:	Podzol	Drainage:	Well to somewhat excessively drained
Parent material:	Shallow glacial till from gray calcareous shales		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Yellowish brown (10YR 5/4) shaly loam; moderate medium granular structure; friable; about 20% coarse fragments; abrupt smooth boundary.	0.14	1.12
B_{21}	8-12	Strong brown (7.5YR 5/6) shaly loam; weak fine granular structure; friable; 20% coarse fragments; abrupt wavy boundary.	.16	.64
B_{22}	12-26	Yellowish brown (10YR 5/8) shaly silt loam; weak fine granular structure; friable; 30% coarse fragments.	.16	2.24
Dr	26+	Calcareous shale bedrock.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.12	27.2	25.4	24.1	16.3	12.9
B_{21}	8-12	Silt loam	1.03	26.0	23.6	22.5	13.1	8.2
B_{22}	12-26	Silt loam	1.10	24.8	22.2	21.4	12.0	7.6

Perham Gravelly Silt Loam (M-26-60)

Sample 21

Location: Smyrna, Aroostook County, Maine
Topography: Gently sloping, 4 percent
Classification: Podzol (Bisequum)
Drainage: Well drained
Parent Material: Glacial till from shales and slates

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; friable; 20% shale fragments; abrupt smooth boundary.	0.20	1.60
B_2	8-16	Yellowish brown (10YR 5/8) gravelly loam; weak fine granular structure; friable; 25% shale fragments; clear wavy boundary.	.15	1.20
A'_2	16-27	Light olive brown (2.5Y 5/4) gravelly loam; weak thin platy structure; friable; 30% shale fragments; clear wavy boundary.	.25	2.75
B'_{21m}	27-36+	Dark brown (10YR 4/3) gravelly clay loam; strong coarse subangular blocky structure; firm; brittle; clay films on peds; 40% shale fragments.	.21	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	0.89	40.8	35.4	30.4	17.7	13.9
B_2	8-16	Silt loam	1.00	28.1	25.4	20.4	13.1	9.9
A'_2	16-27	Silt loam	2.03*	18.5	16.4	14.4	8.1	4.1
B'_{21}	27-36+	Silt loam	1.90*	20.4	17.9	16.2	10.3	6.7

* Clods

Perham Gravelly Silt Loam (M-30-60)

Sample 22

Location: Perham, Aroostook County, Maine
Topography: Gently sloping
Drainage: Well drained
Classification: Podzol (Bisequum)
Parent Material: Glacial till from shales and slates

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Dark yellowish brown (10YR 4/4) gravelly silt loam; weak fine granular structure; friable; 20% shale fragments; abrupt smooth boundary.	0.29	2.03
B_2	7-11	Strong brown (7.5YR 6/8) gravelly silt loam; weak fine granular structure; friable; 30% shale fragments; clear wavy boundary.	.19	.76
A'_2	11-20	Grayish brown (10YR 5/2) gravelly loam; weak thin platy structure; firm in place; 45% shale fragments; clear wavy boundary.	.17	1.53
B'_{21m}	20-30+	Yellowish brown (10YR 5/6 gravelly clay loam; moderate medium subangular blocky structure; firm; brittle; clay films on peds; 30% shale fragments.	.16	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Silt loam	1.48*	39.8	33.4	28.9	18.1	13.6
B_2	7-11	Silt loam	1.67*	30.1	22.9	20.2	11.8	11.2
A'_2	11-20	Loam	1.72*	25.0	20.2	17.6	11.1	10.7
B'_{21}	20-30+	Clay loam	1.87*	24.0	19.8	18.0	13.6	11.2

* Clods

Plaisted Loam (M-2-58)

Sample 23

Location:	West Old Town, Penobscot County, Maine	Topography:	Gently sloping and rolling upland
Classification:	Podzol	Drainage:	Well drained
Parent Material:	Deep glacial till from acid shales and sandstone		

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 9	Dark yellowish brown (10YR 4/4) loam; weak medium granular structure; very friable; abrupt smooth boundary.	0.18	1.62
B_2	9-14	Strong brown (7.5YR 5/6) to yellowish brown (10YR 5/6) loam to sandy loam; weak fine granular structure; friable; clear wavy boundary.	.16	.80
C_{1m}	14-36	Light olive brown (2.5Y 5/4) to pale olive (5Y 6/3) sandy loam; moderately strong medium subangular blocky to thick platy structure; firm; 30-40% coarse skeleton; gradual wavy boundary.	.17	3.74
C_{2m}	36-44+	Light gray (5Y 7/2) sandy loam; weak coarse subangular blocky structure; very firm; 40-50% coarse skeleton; diffuse wavy boundary.	.17	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 9	Loam	1.05	37.8	29.3	28.3	13.3	12.3
B_2	9-14	Sandy loam	1.22	28.0	20.4	18.5	10.4	7.5
C_{1m}	14-36	Sandy loam	1.31	24.5	17.3	15.3	4.5	4.2
C_{2m}	36-44+	Silt loam	1.28	19.4	17.3	17.0	4.7	2.7

Plaisted Loam (M-2-59)

Sample 24

Location: Orono, Penobscot County, Maine
Topography: Gently sloping and rolling uplands
Classification: Podzol
Drainage: Well drained
Parent Material: Deep glacial till from acid shales and sandstone

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark brown (10YR 4/3) loam; weak medium granular structure; very friable; 10-15% coarse skeleton; abrupt smooth boundary. Numerous remnants of A_2 horizon that had not been destroyed by cultivation.	0.12	0.96
B_{21}	8-14	Strong brown (7.5YR 5/6) loam; weak medium granular structure; friable; 15-20% coarse skeleton; clear irregular boundary.	.14	.84
B_{22}	14-20	Yellowish brown (10YR 5/6) sandy loam; weak medium granular structure; friable; 20-30% coarse skeleton; clear wavy boundary.	.16	.96
B_{3m}	20-26	Light olive brown (2.5Y 5/4) sandy loam; weak thick platy structure; crushes readily to single grain; firm; 30-40% coarse skeleton; gradual wavy lower boundary.	.18	1.08
C_m	26-32+	Olive gray (5Y 5/2) gravelly sandy loam; weak thick platy structure; very firm but brittle when displaced; over 50% coarse skeleton.	.23	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Loam	1.15	33.8	27.9	23.3	18.5	17.7
B_{21}	8-14	Sandy loam	1.21	30.2	22.0	17.0	12.8	10.9
B_{22}	14-20	Sandy loam	1.16	30.0	22.0	18.0	10.9	8.8
B_{3m}	20-26	Sandy loam	1.25	25.3	18.3	14.7	7.8	4.1
C	26-32+	Sandy loam	1.59	21.4	17.9	13.8	7.4	3.0

Plaisted Loam (M-24-60)

Sample 25

Location: Hartland, Somerset County, Maine
Topography: Gently sloping, 3 percent
Classification: Podzol
Drainage: Well drained
Parent Material: Glacial till

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark grayish brown (10YR 4/2) loam; weak fine granular structure; friable; 10% coarse fragments; abrupt smooth boundary.	0.26	2.08
B_{21}	8-12	Yellowish brown (10YR 5/8) loam; weak fine granular structure; friable; 15% coarse fragments; clear wavy boundary.	.27	1.08
B_{22}	12-15	Light olive brown (2.5Y 5/6) loam; weak fine granular structure; friable; 15% coarse fragments; clear wavy boundary.	.27	.81
B_3	15-18	Olive (5Y 5/4) gravelly loam; moderate thin platy structure; firm in place, friable on removal; 20% coarse fragments; clear wavy boundary.	.27	.81
C_m	18-36+	Olive (5Y 4/3) gravelly loam; strong thin platy structure; very firm; 25% coarse fragments.	.18	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.18	35.8	31.5	27.7	13.1	9.3
B_{21}	8-12	Silt loam	.97	46.9	37.8	31.7	13.8	10.2
B_{22}	12-15	Silt loam	1.14	36.4	31.5	26.2	10.3	7.7
B_3	15-18	Silt loam	1.36	28.2	25.4	21.2	7.5	5.6
C	18-36+	Silt loam	1.46	19.9	17.6	14.9	6.7	5.2

Salmon Silt Loam (M-21-60)

Sample 26

Location:	Anson, Somerset County, Maine	Topography:	Nearly level terrace, 2 percent slope
Classification:	Podzol		
Parent Material:	Water-deposited sandy materials	Drainage:	Well drained

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 7	Dark brown (10YR 4/3) silt loam; moderate medium granular structure; friable; abrupt wavy boundary.	0.22	1.54
B_{21}	7- 9	Strong brown (7.5YR 5/6) silt loam; weak fine granular structure; friable; abrupt wavy boundary.	.16	.32
B_{22}	9-13	Yellowish brown (10YR 5/4) silt loam; weak fine granular structure; friable; abrupt wavy boundary.	.16	.64
B_3	13-20	Light olive brown (2.5Y 5/4) fine sandy loam; weak fine granular structure; friable; clear wavy boundary.	.16	1.12
D	20-36+	Dark olive gray (5Y 3/2) and olive (5Y 5/3) intermingled sand and gravel; structureless; single grained; loose; 30% fine gravel.	.05	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 7	Silt loam	1.25	36.6	28.3	26.1	20.5	10.7
B_{21}	7- 9	Silt loam	.86	65.7	31.9	25.3	17.1	12.9
B_{22}	9-13	Silt loam						
B_3	13-20	Sandy loam	1.15	30.0	17.9	13.6	6.9	4.5
D	20-36+	Sand	1.62	5.2	4.4	2.6	1.1	1.0

Salmon Silt Loam (M-22-60)

Sample 27

Location: Madison, Somerset County, Maine
Topography: Nearly level terrace, 2 percent slope
Classification: Podzol
Drainage: Well drained
Parent Material: Water-deposited sandy materials

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark brown (10YR 4/3) silt loam; weak fine granular structure; friable; abrupt smooth boundary.	0.32	2.56
B_{21}	8-13	Dark brown (7.5YR 4/4) silt loam; weak fine granular structure; friable; clear wavy boundary.	.32	1.60
B_{22}	13-18	Dark brown (10YR 4/3) silt loam; weak fine granular structure; friable; abrupt wavy boundary.	.28	1.40
B_3	18-23	Olive brown (2.5Y 4/4) loamy fine sand; weak fine granular structure; friable; abrupt wavy boundary.	.28	1.40
D	23-36+	Olive (5Y 5/4) sand; structureless; single grained; loose; 10% fine gravel.	.22	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.14	41.5	37.2	34.4	13.7	9.1
B_{21}	8-13	Silt loam	.97	54.0	44.7	40.0	9.1	11.0
B_{22}	13-18	Silt loam	.97	46.4	36.8	30.8	10.4	7.8
B_3	18-23	Sandy loam	1.14	35.9	30.1	26.5	7.6	5.6
D	23-36+	Sandy loam	1.33	26.8	20.5	17.1	4.4	4.0

Stetson Gravelly Loam (M-11-59)

Sample 28

Location: Caribou, Aroostook County, Maine
Topography: Gently sloping to undulating
Classification: Podzol
Drainage: Well drained
Parent Material: Glacial-water-deposited sands and gravels

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0-10	Dark yellowish-brown (10YR 4/4) gravelly loam; moderate medium granular structure; friable; abrupt smooth boundary.	0.09	0.90
B_{21}	10-13	Reddish brown (5YR 4/4) gravelly sandy loam; moderate medium granular structure; firm in place, friable on removal; clear wavy boundary.	.14	.42
B_{22}	13-28	Dark yellowish brown (10YR 4/4) gravelly loamy sand; weak fine granular structure; firm in place, friable on removal; clear wavy boundary.	.08	1.20
B_3	28-38	Light olive brown (2.5Y 5/4) gravelly loamy sand; weak fine granular structure; firm in place, friable on removal; clear wavy boundary.	.06	.60
D	38-44+	Light olive brown (2.5Y 5/4) stratified sand with gravel; single grain; loose.	.06	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-10	Sandy loam	1.28	20.6	18.3	17.3	11.6	10.7
B_{21}	10-13	Loamy sand	.98	30.7	25.6	23.7	11.0	10.9
B_{22}	13-28	Sand	1.18	14.0	12.1	11.2	6.2	5.5
B_3	28-38	Sand	1.37	10.3	8.7	8.1	4.3	4.2
D	38-44+	Sand	1.55	7.7	6.6	5.9	2.9	2.9

Stetson Gravelly Loam (M-7-60)

Sample 29

Location: Fort Fairfield, Aroostook County, Maine

Topography: Nearly level terrace

Drainage: Well drained

Classification: Podzol

Parent Material: Deep glacial outwash deposits of stratified materials

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark yellowish brown (10YR 4/4) gravelly loam; moderate medium granular structure; friable; 20% coarse fragments; abrupt smooth boundary.	0.14	1.12
B_{21}	8-14	Strong brown (7.5YR 5/8) gravelly loam; weak fine granular structure; friable; 25% coarse fragments; clear wavy boundary.	.13	.78
B_{22}	14-23	Yellowish brown (10YR 5/6) gravelly sandy loam; weak fine granular structure; friable; 30% coarse fragments; clear wavy boundary.	.10	.90
D_1	23-36	Olive (5Y 4/3) sand and gravel; single grain; loose; 40-50% gravel.	.06	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Loam	1.22	25.7	23.8	21.2	13.3	12.1
B_{21}	8-14	Sandy loam	0.98	30.6	23.7	20.6	13.5	10.1
B_{22}	14-23	Loamy sand	1.16	17.9	13.5	11.5	7.9	5.5
D_1	23-36	Sand	1.41	9.2	7.2	5.8	3.5	2.8

Thorndike Silt Loam (M-3-58)

Sample 30

Location:	Garland, Penobscot County, Maine	Topography:	Undulating and rolling
Classification:	Podzol	Drainage:	Well drained and moderately rapidly permeable
Parent Material:	Upland soil developed on thin glacial till from shale and slate		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark brown (10YR 3/3) silt loam; weak medium granular structure; very friable; clear smooth boundary.	0.15	1.20
B_2	8-14	Strong brown (7.5YR 5/8) silt loam; weak fine granular structure; friable; irregular clear boundary.	.17	1.02
B_3	14-20	Strong brown (7.5YR 5/6) shaly silt loam; weak thick platy structure; very friable; abrupt wavy boundary.	.17	1.02
C	20-24	Yellowish brown (10YR 5/4) shaly silt loam; strong thin platy structure; loose; gradual wavy boundary into underlying bedrock.	.15	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	0.89	40.6	35.3	33.5	19.7	17.9
B_2	8-14	Silt loam	1.02	36.1	29.2	26.3	13.8	12.8
B_3	14-20	Silt loam	1.11	32.3	24.9	21.2	14.0	9.6
C	20-24	Silt loam	1.11	25.1	20.3	18.1	14.2	7.3

Thorndike Shaly Silt Loam (M-25-60)

Sample 31

Location: St. Albans, Somerset County, Maine
Topography: Gently rolling, 5 percent slope
Classification: Podzol
Drainage: Well drained
Parent Material: Glacial till

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; friable; 15% shale fragments; abrupt smooth boundary.	0.18	1.26
B_{21}	7-12	Yellowish brown (10YR 5/8) silt loam; weak fine granular structure; friable; 20% shale fragments; clear wavy boundary.	.24	1.20
B_{22}	12-16	Olive brown (2.5Y 4/4) loam; weak fine granular structure; friable; 30% shale fragments.	.25	1.00
D_r	16+	Shale bedrock.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Silt loam	1.00	37.5	33.6	29.4	18.4	15.5
B_{21}	7-12	Silt loam	1.15	35.2	32.1	26.6	13.6	11.5
B_{22}	12-16	Silt loam	1.25	32.3	29.0	23.1	12.8	8.5

Thorndike Shaly Loam (M-29-60)

Sample 32

Location: Perham, Aroostook County, Maine
Topography: Gently rolling
Drainage: Well drained
Classification: Podzol
Parent Material: Thin glacial till from shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0-10	Dark brown (10YR 4/3) shaly loam; weak fine granular structure; friable; 20% shale fragments; abrupt smooth boundary.	0.13	1.30
B_{21}	10-15	Yellowish red (5YR 5/6) shaly loam; weak fine granular structure; friable; 25% shale fragments; clear wavy boundary.	.07	.35
B_{22}	15-23	Yellowish brown (10YR 5/8) shaly loam; weak fine granular structure; friable; 40% shale fragments.	.11	.88
D_r	23+	Shale bedrock.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-10	Loam	1.06	29.0	25.7	21.5	16.2	13.8
B_{21}	10-15	Silt loam	1.04	37.0	21.4	20.3	16.5	14.1
B_{22}	15-23	Sandy loam	1.03	35.3	24.5	23.6	20.1	13.2

Buxton Silt Loam (M-9-59)

Sample 33

Location: Cumberland Center, Cumberland County, Maine
Classification: Brown Podzolic
Parent Material: Marine deposits; silts and clays
Topography: Very gently sloping
Drainage: Moderately well drained; moderately permeable in surface layer and slowly permeable in substrata

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 4	Brown (10YR 4/3) silt loam; weak fine granular structure; friable; clear boundary.	0.21	0.84
B_{21}	4- 8	Yellowish brown (10YR 5/6) silt loam; weak fine granular structure; friable; clear wavy boundary.	.22	.88
B_{22g}	8-20	Light brownish gray (10YR 6/2) silty clay loam with common, medium, faint grayish brown (10YR 5/2) mottles; weak blocky subangular structure; firm in place.	.17	2.04
C_g	20-26+	Light gray (10YR 6/1) silty clay with many medium distinct brown and olive mottles; blocky subangular structure; very firm.	.15	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 4	Silt loam	0.86	55.7	42.3	38.1	21.3	17.4
B_{21}	4- 8	Silt loam	.84	55.6	44.3	37.8	18.2	17.8
B_{22g}	8-20	Silty clay loam	1.49	25.9	23.7	22.2	14.7	12.6
C	20-26+	Silty clay	1.72*	34.3	30.0	27.2	25.4	21.8

* Clods

Buxton Silt Loam (M-12-59)

Sample 34

Location: Brewer, Penobscot County, Maine
Classification: Brown Podzolic
Parent Material: Lacustrine terrace deposits; silts
Topography: Very gently sloping relief
Drainage: Moderately well drained; moderately permeable in surface layer and very slowly permeable in substrata

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark yellowish brown (10YR 4/4) moist silt loam; weak fine medium granular structure; friable; abrupt smooth boundary.	0.20	1.60
B_{21g}	8-13	Brownish yellow (10YR 6/8) moist silt loam with a few faint gray and brown mottles; weak medium platy breaking into fine subangular blocky structure; friable; clear wavy boundary.	.19	.95
B_{22g}	13-18	Olive gray (5Y 7/2) silt loam mottled brown and yellow; weak medium platy structure; firm in place; brittle; clear wavy boundary.	.16	.80
B_{23g}	18-25	Dark grayish brown (2.5Y 4/2) silt loam mottled light bray and olive yellow; strong medium platy structure; firm; brittle; gradual wavy boundary.	.16	1.12
C_{1g}	25-42	Light olive brown (2.5Y 5/4) heavy silt loam mottled gray and yellowish brown; strong thick platy structure (massive clods); very firm; diffuse wavy boundary.	.18	3.06
C_{2g}	42-48+	Strongly mottled dark brown and gray heavy silt loam; strong thick platy structure (massive clods).	.19	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.29	30.1	26.8	24.7	15.2	12.0
B_{21g}	8-13	Silt loam	1.40	25.7	22.6	19.4	11.6	9.1
B_{22g}	13-18	Silt loam	1.65	19.0	18.3	16.0	12.1	8.7
B_{23g}	18-25	Silt loam	1.77	17.8	17.6	16.9	12.6	8.4
C_{1g}	25.42	Silt loam	1.67	20.4	20.0	18.9	12.1	8.8
C_{2g}	42-48+	Silt loam	1.56	25.4	25.3	24.6	18.8	12.8

Buxton Silt Loam (M-14-60)

Sample 35

Location: Skowhegan, Somerset County, Maine
Topography: Gently rolling
Drainage: Moderately well drained
Classification: Brown Podzolic
Parent Material: Water-deposited silts and clays

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 9	Brown (10YR 5/3) silt loam; moderate medium granular structure; friable; abrupt smooth boundary.	0.15	1.35
B_{21g}	9-11	Yellowish brown (10YR 5/6) silt loam with many fine grayish brown mottles; moderate medium granular structure; friable; clear wavy boundary.	.13	.26
B_{22g}	11-16	Grayish brown (10YR 5/2) silty clay loam with many coarse yellowish brown mottles; moderate medium subangular blocky structure; firm; clear wavy boundary.	.14	.70
C_{1g}	16-36+	Dark gray (5Y 4/1) and olive gray (5Y 4/2) silty clay loam with many coarse strong brown mottles; strong coarse subangular blocky structure; firm.	.10	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 9	Silty clay loam	1.26	35.5	33.1	31.6	22.8	21.7
B_{21g}	9-11	Silty clay loam	1.28	34.5	32.2	30.8	26.9	22.0
B_{22g}	11-16	Silty clay loam	1.26	32.8	29.9	28.5	25.5	19.3
C_{1g}	16-36+	Silty clay loam	1.53	22.4	22.3	21.7	18.4	15.7

Buxton Silt Loam (M-4-58)

Sample 36

Location:	Bradley, Penobscot County, Maine	Topography:	Level to gently sloping
Classification:	Brown Podzolic	Drainage:	Moderately well drained and moderately slowly permeable
Parent Material:	Marine and lacustrine deposits; silts and sands over clay		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Very dark grayish brown (10YR 3/2) silt loam; weak medium granular structure; friable; abrupt smooth boundary.	0.28	1.96
B_{21}	7-12	Yellowish brown (10YR 5/6) to yellowish brown (10YR 5/4) silt loam; weak fine granular structure; clear wavy boundary.	.29	1.45
B_{22g}	12-30	Brown (10YR 5/3) to grayish brown (2.5Y 3/2) silt loam mottled grayish brown and pale yellow; weak medium platy structure; firm; clear wavy boundary.	.18	3.24
C_g	30-36+	Light brownish gray (2.5Y 6/2) silty clay loam mottled gray, dark gray, and brown; moderate coarse platy structure; firm; slightly acid.	.19	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Silt loam	1.15	37.7	34.9	32.3	13.8	10.7
B_{21}	7-12	Silt loam	1.34	30.1	28.6	22.9	9.5	6.5
B_{22g}	12-30	Silt loam	1.45	22.1	16.7	11.4	5.4	4.2
C_g	30-36+	Silty clay loam	1.58	22.1	21.7	20.6	14.0	9.3

Hinckley Sandy Loam (M-7-59)

Sample 37

Location: Sanford, York County, Maine
Classification: Brown Podzolic
Parent Material: Coarse glacial outwash with gravel substrata
Topography: Gently sloping to rolling
Drainage: Excessively drained

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inch)
A_p	0- 8	Dark brown (10YR 3/3) sandy loam; very weak fine granular structure; loose; abrupt smooth boundary.	0.06	0.48
B_{21}	8-14	Brown (7.5YR 5/4) loamy sand; single grain; loose; gradual wavy boundary.	.10	.60
B_{22}	14-20	Strong brown (7.5YR 5/6) loamy sand; single grain; loose; 15% coarse skeleton; clear wavy boundary.	.10	.60
C	20-26	Yellowish brown (10YR 5/8) sand; single grain; loose; clear smooth boundary.	.07	.42
D	26-32+	Brownish yellow (10YR 6/8) sand and gravel; single grain; loose; pH 5.2.	.07	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 8	Loamy sand	1.15	21.1	13.7	12.5	8.2	8.3
B_{21}	8-14	Loamy sand	1.25	22.5	16.9	13.8	8.0	8.7
B_{22}	14-20	Loamy sand	1.23	17.0	13.2	10.8	6.2	5.1
C	20-26	Sand	1.39	9.8	7.6	5.8	3.9	3.0
D	26-32+	Sand	1.47	6.0	6.0	3.0	2.0	1.4

Suffield Silt Loam (M-5-58)

Sample 38

Location: Old Town, Penobscot County, Maine
Topography: Undulating to rolling
Classification: Brown Podzolic
Drainage: Well drained; moderately permeable in surface layer and slowly permeable in substrata
Parent Material: Uplifted marine and lacustrine deposits; silts and clays

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 8	Brown (10YR 5/3) silt loam; strong fine granular structure; friable; clear wavy boundary.	0.23	1.84
B_{21}	8-10	Light yellowish brown (10YR 6/4) silt loam; weak medium granular structure; friable; abrupt smooth boundary.	.34	.68
B_3	10-20	Yellow (10YR 7/6) to pale brown (10YR 6/3) silt loam; fine subangular blocky structure; firm; gradual wavy boundary.	.25	2.50
C	20-26+	Gray (10YR 5/1) silt loam; strong medium subangular blocky structure; very firm.	.23	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.05	42.4	35.7	33.0	15.4	14.0
B_{21}	8-10	Silt loam	1.12	45.8	39.7	27.3	12.9	10.3
B_3	10-20	Silt loam	1.30	33.3	26.2	21.9	9.1	7.2
C	20-26+	Silt loam	1.60	20.8	20.2	14.5	6.5	5.7

Easton Silt Loam (M-6-60)

Sample 43

Location: Caribou, Aroostook County, Maine
Topography: Nearly level
Drainage: Poorly drained
Classification: Low Humic Gley
Parent Material: Glacial till from gray calcareous shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 6	Very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; friable; abrupt smooth boundary.	0.30	1.80
A_{2g}	6-10	Mottled grayish brown (2.5Y 5/2) and light olive brown (2.5Y 5/6) loam; weak thin platy structure; friable; abrupt wavy boundary.	.16	.64
B_{21g}	10-27	Mottled yellowish brown (10YR 5/6) and grayish brown (2.5Y 5/2) silt loam; moderate coarse subangular block structure; firm; clay films on peds; 15% coarse fragments; clear wavy boundary.	.05	.85
B_{22g}	27-36	About same as above except slightly heavier texture.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 6	Silt loam	1.06	51.0	48.5	47.4	25.3	19.7
A_{2g}	6-10	Silt loam	1.53	21.2	21.1	20.8	11.5	10.3
B_{21g}	10-27	Loam	1.85	14.4	14.4	14.4	11.5	11.2

Monarda Silt Loam (M-5-59)

Sample 44

Location: Corinna, Penobscot County, Maine
Topography: Nearly level to gently sloping
Classification: Low Humic Gley
Drainage: Poorly drained
Parent Material: Slaty glacial till with high percent of silt; usually neutral or slightly acid

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; friable; 10-20% coarse skeleton; abrupt smooth boundary; strongly acid.	0.32	2.24
A_{2g}	7-10	Light olive gray (5Y 6/2) silt loam; weak thin platy structure; friable; 10-20% coarse skeleton; clear wavy boundary; strongly acid.	.22	.66
B_{21g}	10-15	Olive (5Y 5/3) silt loam with gray (2.5Y 5/0) and light olive brown (2.5Y 5/4) mottles; strong thin platy structure; firm; brittle; 10-20% coarse skeleton; clear wavy boundary; strongly acid.	.22	1.10
B_{22gm}	15-26	Olive gray (5Y 5/2) silt loam with many medium prominent pale brown (10YR 6/3) mottles; strong medium platy structure; and dark brown (10YR 4/3) very firm silt loam; gradual wavy boundary. Brown leached rock fragments, and 20-30% coarse skeleton; medium acid.	.22	2.42
B_{23gm}	26-38	Mottled olive gray (5Y 5/2) and light olive gray (5Y 6/2) silt loam; moderately strong medium platy structure; very firm; gradual wavy boundary. Brown leached fragments, and 20-30% coarse skeleton; medium acid.	.22	2.64

Horizon	Depth (Inches)		Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p		Silt loam	0.98	54.8	48.5	46.1	35.3	16.0
A_{2g}+ B_{21gm}	7-15	Silt loam	1.54	21.0	20.6	19.0	18.6	6.2
B_{22gm}+B_{23gm}	15-38	Silt loam	1.71	19.1	18.6	17.5	17.0	6.1

Monarda Silt Loam (M-16-60)

Sample 45

Location: Cornville, Somerset County, Maine
Topography: Nearly level
Drainage: Poorly drained
Classification: Low Humic Gley
Parent Material: Wisconsin glacial till from acid slates and shales

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 9	Very dark gray (10YR 3/1) silt loam; weak medium granular structure; friable; 10% coarse fragments; abrupt smooth boundary.	0.26	2.34
A_2		Light brownish gray (10YR 6/2), too thin to sample.		
B_{21g}	9-22	Grayish brown (10YR 5/2) silt loam with many medium yellowish brown mottles; weak coarse granular structure; firm; 20% coarse fragments; clear wavy boundary.	.17	2.21
B_{22gm}	22-28	Light olive brown (2.5Y 5/4) silt loam with many medium yellowish brown and grayish brown mottles; strong medium granular structure in upper part and strong platy in lower part; firm; 20% coarse fragments; clear wavy boundary.	.29	1.74
C_{1gm}	28-36+	Grayish brown (2.5Y 5/2) silt loam with a few fine yellowish brown mottles; massive; very firm; 40% coarse fragments.		

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 9	Silt loam	1.12	41.4	37.5	36.3	18.2	14.7
B_{21g}	9-22	Silt loam	1.53	19.2	15.9	14.3	7.4	4.5
B_{22g}	22-28	Silt loam	1.85*	23.2	20.3	18.5	8.6	5.0

* Clods

Scantic Silt Loam (M-13-60)

Sample 46

Location: Skowhegan, Somerset County, Maine
Topography: Nearly level
Drainage: Poorly drained
Classification: Low Humic Gley
Parent Material: Water-deposited silts and clays

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 8	Dark grayish brown (2.5Y 4/2) silt loam; moderate medium granular structure; friable; abrupt smooth boundary.	0.31	2.48
B_{21g}	8-10	Light olive brown (2.5Y 5/4) silt loam with many fine grayish brown and yellowish brown mottles; strong coarse granular and subangular blocky structure; firm in place; clear wavy boundary.	.22	.44
B_{22g}	10-19	Grayish brown (2.5Y 5/2) silty clay loam with common coarse light olive brown mottles; strong medium subangular blocky structure; firm; clear wavy boundary.	.19	1.71
C_{1g}	19-36+	Olive gray (5Y 5/2) silty clay loam with a few fine very dark grayish brown mottles; strong medium subangular blocky structure; firm.	.09	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 8	Silt loam	1.04	50.8	45.6	44.5	21.6	15.6
B_{21g}	8-10	Silt loam	1.29	34.1	30.3	25.4	20.0	13.4
B_{22g}	10-19	Silt loam	1.61	21.5	20.5	19.5	14.2	8.5
C_{1g}	19-36+	Silty clay	1.57	25.3	24.1	23.7	20.0	18.2

Hadley Silt Loam (M-19-60)

Sample 47

Location: Norridgewock, Somerset County, Maine
Topography: Nearly level
Drainage: Well drained
Classification: Alluvial
Parent Material: Recent stream-deposited fine sands and silts

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0- 9	Dark grayish brown (2.5Y 4/2) silt loam; weak fine granular structure; friable; abrupt smooth boundary.	0.18	1.62
C_1	9-30+	Light olive brown (2.5Y 5/4) silt loam; weak fine granular structure; friable.	.22	4.62+

Horizon	Depth (Inches)	Texture	Bulk density	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0- 9	Silt loam	1.28	30.8	21.0	17.8	9.7	7.0
C_1	9-30+	Silt loam	1.12	40.9	24.8	19.4	7.6	5.7

Hadley Silt Loam (M-20-60)

Sample 48

Location: Norridgewock, Somerset County, Maine
Topography: Nearly level
Drainage: Well drained
Classification: Alluvial
Parent Material: Recent stream-deposited fine sands and silts

Horizon	Depth (Inches)	Profile description	Available moisture	
			Per inch of soil (Inch)	In horizon (Inches)
A_p	0-10	Dark grayish brown (2.5Y 4/2) silt loam; weak fine granular structure; friable; abrupt smooth boundary.	0.28	2.80
C_1	10-30+	Light olive brown (2.5Y 5/4) silt loam; weak fine granular structure; friable.	.31	6.20+

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres				
				1/10	1/3	2/3	5	15
A_p	0-10	Silt loam	1.09	41.9	36.1	33.8	12.9	10.2
C_1	10-30+	Silt	1.25	34.4	30.4	26.3	8.2	5.5

Ondawa Fine Sandy Loam (M-32-60)

Sample 49

Location:	Milo, Piscataquis County, Maine	Topography:	Nearly level to gently sloping
Classification:	Alluvial	Drainage:	Well to somewhat excessively drained
Parent Material:	Recent stream-deposited sands		

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0-10	Very dark grayish brown (10YR 3/2) fine sandy loam; weak fine and medium granular structure; friable; abrupt smooth boundary; medium acid.	0.18	1.80
C_1	10-21	Dark yellowish brown (10YR 4/4) fine sandy loam; weak medium granular structure; friable; abrupt smooth boundary; strongly acid.	.19	2.09
C_2	21-32	Olive brown (2.5Y 4/4) sandy loam; weak fine granular structure; friable; abrupt smooth boundary; strongly acid.	.18	1.98
D	32-40+	Grayish brown (2.5Y 5/2) coarse sand and fine gravel; single grain; loose; strongly acid.	.10	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-10	Sandy loam	1.22	29.3	22.7	20.4	9.8	7.8
C_1	10-21	Sandy loam	1.10	31.7	22.1	16.5	7.6	4.9
C_2	21-32	Sandy loam	1.04	32.2	21.7	15.8	6.0	5.0
D	32-40+	Sand	1.38	11.5	9.6	7.0	2.9	2.0

Suncook Loamy Sand (M-17-60)

Sample 50

Location: Strong, Franklin County, Maine
Classification: Alluvial
Parent Material: Recent stream-deposited sands
Topography: Nearly level
Drainage: Somewhat excessively drained

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inch)
A_p	0-10	Very dark grayish brown (2.5Y 3/2) loamy fine sand; weak very fine granular structure; friable; abrupt smooth boundary.	0.08	0.80
C_1	10-15	Dark grayish brown (10YR 4/2) loamy fine sand; single grain; loose; abrupt smooth boundary.	.13	.65
C_2	15-24	Intermingled very dark grayish brown (2.5Y 3/2) and light brownish gray (2.5Y 6/2) coarse sand; single grain; loose; abrupt smooth boundary.	.03	.27
C_3	24-32	Dark grayish brown (2.5Y 4/2) loamy fine sand; single grain; loose; abrupt smooth boundary.	.10	.80
C_4	32-42	Intermingled very dark grayish brown (2.5Y 3/2) and light brownish gray (2.5Y 6/2) coarse sand; single grain; loose.	.03	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0-10	Loamy sand	1.53	16.5	10.6	9.6	5.5	5.2
C_1	10-15	Sandy loam	1.29	26.5	15.0	11.9	6.4	4.3
C_2	15-24	Sand	1.47	3.4	3.2	2.3	1.5	1.3
C_3	24-32	Loamy sand	1.28	21.0	11.4	7.8	4.5	3.8
C_4	32-38+	Sand	1.38	4.4	3.6	2.9	2.0	1.8

Suncook Loamy Sand (M-18-60)

Sample 51

Location: Farmington, Franklin County, Maine
Topography: Nearly level
Drainage: Somewhat excessively drained
Classification: Alluvial
Parent Material: Recent stream-deposited sands

Horizon	Depth (Inches)	Profile description	Available moisture: Per inch of soil (Inch)	Available moisture: In horizon (Inches)
A_p	0- 7	Dark grayish brown (2.5Y 4/2) loamy fine sand; weak fine granular structure; friable; abrupt smooth boundary.	0.09	0.63
C_1	7-24	Light olive brown (2.5Y 5/4) loamy fine sand; weak fine granular structure; firm in place; abrupt smooth boundary.	.09	1.53
C_2	24-27	Light olive brown (2.5Y 5/4) fine sand; single grain; loose; abrupt smooth boundary.	.04	.12
C_3	27-32+	Olive brown (2.5Y 4/4) loamy fine sand; weak fine granular structure; friable.	.12	

Horizon	Depth (Inches)	Texture	Bulk density (Gm/cc)	Percent moisture at respective tensions in atmospheres: 1/10	1/3	2/3	5	15
A_p	0- 7	Loamy sand	1.49	17.5	11.0	10.6	5.7	5.0
C_1	7-24	Loamy sand	1.37	20.7	10.8	8.2	6.1	4.4
C_2	24-27	Sand	1.30	7.0	4.7	4.3	2.0	1.8
C_3	27-32+	Sandy loam	.92	38.1	18.6	15.2	7.6	5.4

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